ABSTRACT OF THE DISCLOSURE

A cutting blade includes a connection portion for connection to a cutting head for rotating the blade, preferably in association with other blades being rotated with the cutting head. The blade body also includes a blade body portion with a leading edge with a cutting blade portion and an upper leading surface and lower leading surface extending from the leading edge to an upper transition zone and lower transition zone respectively. A upper trailing surface extends from the upper transition zone to a trailing edge and a lower trailing surface extends from the lower transition zone to the trailing edge. The upper and lower trailing surfaces converge such that the blade body portion is hydrodynamically shaped. According to a further embodiment, the cutting blade has a sickle shape. Specifically the cutting blade portion progresses from a leading location toward a trailing location of this leading edge or cutting edge as it extends radially outwardly from the blade body connection portion toward a radially outer end of the blade knife portion. The blade knife body is advantageously used as part of an underwater pelletizer with a shaft supporting the blade knife body. The pelletizer fluid passage structure forms the fluid coolant flow passage and supports the shaft. A pelletizing die plate is disposed such that the polymer material is extruded into the coolant flow passage and is cut by the blade.